

Reply to Office Action of August 29, 2006

Claims

1. - 17 (cancelled)

18. A method for estimating the impact of a promotion on product performance for a product in the market, the method comprising:

- (a) identifying at least one market event whose occurrence will impact product performance;
- (b) collecting market data including promotion and product performance data and generating descriptive statistics for each data variable;
- (c) selecting a model for the relationship between the at least one promotion and product performance, wherein selecting the model comprises:
 - (d) applying a cross-correlation function to the market data to systematically detect a promotion lag structure in.
 - (e) examining the temporal pattern of market data against time and accordingly selecting a functional form for the promotion lag structure which fits the occurrence of the at least one market event;
 - (f) applying a cross-correlation function to the market data and promotion lag structure, and other market variables to systematically detect data lag structures for the other market variables;

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(g) computing model parameters by fitting the model to market variables and promotion variables, lag structures, market events and market inputs; and

(e) calculating product performance attributable to the promotion according to the fitted model; and providing said product performance attributable to the promotion to said user as an estimate of promotion impact.

19. The method of claim 18, wherein fitting the model comprises evaluating a model residual to detect any auto-correlation in the model residual, and accordingly including an autoregressive structure for the model residual in the model.

20. The method of claim 18, wherein applying a cross-correlation function to the market data to systematically detect a promotion lag comprises:

fitting a univariate auto-regressive model to the promotion data;

regressing the product performance data on a first residual series from fitting the model, using variables known to impact product performance

applying the fitted model to transform a second residual series obtained by regressing the product performance data to determine a third residual series.

determining the cross-correlation function between the first and third residual series residual to assess the lag structure; and

selecting a functional form for the lag structure by fitting the market data

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21. A system for estimating the impact of a promotion on product performance for a product in the market, the system comprising:

- (a) means for identifying at least one market event whose occurrence will impact product performance;
- (b) means for collecting market data including promotion and product performance data and generating descriptive statistics for each data variable;
- (c) means for selecting a model for the relationship between the at least one promotion and product performance, wherein selecting the model comprises:
 - (d) means for applying a cross-correlation function to the market data to systematically detect a promotion lag structure in.
 - (e) means examining the temporal pattern of market data against time and accordingly selecting a functional form for the promotion lag structure which fits the occurrence of the at least one market event;
 - (f) means applying a cross-correlation function to the market data and promotion lag structure, and other market variables to systematically detect data lag structures for the other market variables;
 - (g)means for computing model parameters by fitting the model to market variables and promotion variables, lag structures, market events and market inputs; and

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(e) means for calculating product performance attributable to the promotion according to the fitted model; and providing said product performance attributable to the promotion to said user as an estimate of promotion impact.

22. The system of claim 21, wherein means for fitting the model comprises means for evaluating a model residual to detect any auto-correlation in the model residual, and means for accordingly including an autoregressive structure for the model residual in the model.

23. The system of claim 21, wherein means for applying a cross-correlation function to the market data to systematically detect a promotion lag comprises means for:

fitting a univariate auto-regressive model to the promotion data;

regressing the product performance data on a first residual series from fitting the model, using variables known to impact product performance

applying the fitted model to transform a second residual series obtained by regressing the product performance data to determine a third residual series.

determining the cross-correlation function between the first and third residual series residual to assess the lag structure; and

selecting a functional form for the lag structure by fitting the market data